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# USSR Report

INTERNATIONAL ECONOMIC RELATIONS

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USSR REPORT  
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CONTENTS

CEMA/EASTERN EUROPE

- USSR-Cuba: Long-Term Cooperation Program Outlined  
(P. I. Kormilitsyn; LATINSKAYA AMERIKA, No 3, Mar 85)..... 1
- USSR-Hungary: Symposium Considers Economic Strategy  
(EKONOMICHESKAYA GAZETA, No 23, Jun 85) ..... 7
- Statistical Methods of Studying CEMA Production Efficiency  
(V. Kudinov, M. Eydel'man; VESTNIK STATISTIKI, No 4, 1985) 8

WESTERN EUROPE

- U.S. Attempts To Control Swedish Technology Exports Hit  
(TASS International Service, 8 Jun 85) ..... 20

CEMA/EASTERN EUROPE

USSR-CUBA: LONG-TERM COOPERATION PROGRAM OUTLINED

Moscow LATINSKAYA AMERIKA in Russian No 3, Mar 85, pp 8-13

[Article by P.I. Kormilitsyn: "A New Stage in Soviet-Cuban Cooperation"]

[Text] The Economic Summit Conference of CEMA Member-Countries which was held in Moscow in June 1984 was a new milestone in the history of relations among fraternal parties, states, and peoples and in bolstering socialist economic integration.

The program documents of the Conference gave an indepth analysis of the contemporary stage of development of the world system of socialism and worked out a uniform strategy of socialist economic interaction for the long run. "All this should permit greater utilization of the advantages of socialist integration for the good of our peoples and create the preconditions for more effective performance of the tasks of intensifying production and further equalizing the level of development of CEMA member countries," noted K. U. Chernenko, general secretary of the CPSU Central Committee and chairman of the Presidium of the Supreme Soviet.<sup>1</sup>

The Marxist-Leninist thesis that cooperation gives rise to a new productive force convincingly supports the entire practical development of the socialist commonwealth. Over 35 years of experience of Council of Economic Mutual Assistance work have shown that coordinated solution of key national economic problems of socialist countries, based on national and common interests, has promoted progress on all levels in each of them and in the entire association as a whole.

The evening out of the level of economic development of the commonwealth countries has become a program requirement in CEMA work. The conference designated as a task of great importance the rendering of comprehensive aid to the Republic of Cuba to accelerate economic growth, improve economic effectiveness, and promote the expansion of its participation in the international socialist division of labor, mainly in those branches for which Cuba has favorable conditions for development. In an interview in the newspaper GRANMA C. Rafael Rodriguez, leader of the Cuban delegation to the Conference, member of the Politburo of the Central Committee of the Communist Party of Cuba, and deputy chairman of the State Council and the Council of Ministers of the Republic of Cuba, stated: "Cooperation an a bilateral and

multilateral basis is an important factor in accelerating the progress of our country's development...<sup>2</sup>

On 31 October 1984 in Havana N. A. Tikhonov, member of the Politburo of the CPSU Central Committee and chairman of the USSR Council of Ministers, and F. Castro, first secretary of the Central Committee of the Communist Party of Cuba and chairman of the State Council and Council of Ministers of the Republic of Cuba, signed a long-term program of economic and scientific-technical cooperation between the Union of Soviet Socialist Republics and the Republic of Cuba for the period until the year 2000. The signing of this historic document marks a new stage in the development and bolstering of the socialist economic integration of the CEMA member-countries and raises Soviet-Cuban cooperation to a qualitatively higher level. Its goal is to help complete the construction of the material-technical base of socialism, strengthen Cuba's economy, and further increase the well-being of the country's population.

Bilateral economic and scientific-technical cooperation will be expanded in the following directions: improvement of the structure of social production on the basis of maximal utilization of local resources and the advantages of the international socialist division of labor; an increase in the efficiency of using fixed capital and material and labor resources; intensification of fuel and materials conservation measures; introduction of contemporary technological processes and achievements of scientific-technical progress; full and efficient incorporation of natural resources; accelerated development of the fuel-energy economy (above all the petroleum industry), metallurgy, certain machine building subsectors, electronics, and chemistry; further development of the agroindustrial complex and an increase in its efficiency in accordance with the demands of Cuba's national food program; an increase in Cuban export potential; further assistance in integrating Cuba into the system of international socialist division of labor; an increase in production of certain types of output in accordance with agreements on specialization and cooperation in production within the CEMA framework; assistance in accelerating the development of science and technology and in training and increasing the skills of Cuban specialists, and so forth.

The parties are devoting main attention to questions of the development of the agroindustrial and fuel-energy complexes, ferrous and nonferrous metallurgy, machine building, the electronics, electrical engineering, chemical, light, medical, and building materials industries, and construction as well as transportation and communications.

In the field of the agroindustrial complex the task is being posed to consistently implement measures to strengthen the material base of agriculture and develop a domestic feed base for animal husbandry, expand land improvement construction, develop agrotechnical services and the chemicalization of agricultural production, raise farming efficiency, and increase agricultural crop yield and livestock breeding productivity. The sugar industry is given a special role. This sector will be developed by increasing the level of mechanization of work on cultivating and harvesting sugar cane, building new and modernizing and reconstructing existing processing plants, and fundamentally improving transportation work. A

specialized atomic power plant is to be developed and launched. Certain capital investments to work out new technology and develop the material base for producing microbiological synthesis products, feed protein, and other industrial output obtained in the process of comprehensive processing of sugar cane are planned.

The production and industrial processing of citrus fruits will be developed further. A complex of land improvement jobs is to be implemented on plantations and new enterprises and primary processing and canning installations as well as warehouses for storing citrus fruits and products made from them are to be built. Cooperation in this field, as in the sugar industry, is being implemented in accordance with sectorial programs adopted within the CEMA framework.

In 1984 Cuba produced more than 600,000 tons of citrus fruits and most of the harvest was exported to countries of the socialist community. The task is being posed to bring production up to 2 million tons. By fulfilling this program Cuba will occupy one of the first places among producers and exporters of citrus fruits in the world. It is important to emphasize that the program's realization promises tangible benefits not only for Cuba but also for its CEMA partners: on the one hand, the output is exported at preferential prices and has a guaranteed market; on the other, the socialist countries substantially increase the level of domestic consumption of these valuable products without incurring expenditures in freely convertible currency.

Capital is to be directed to develop certain subsectors of the food industry, strengthen the material base of the fishing industry, in particular to develop intensive methods of raising fresh-water fish, intensify reforestation work, and organize logging and wood processing.

The expansion of Cuba's export capabilities both through traditional commodities and by organizing production within the agricultural complex of new types of output -- sorbitol, vitamin C, activated carbon, furfural, lysine, citric acid, and others -- will be one of the results of this work.

With respect to the fuel-energy complex, a great deal of attention is being devoted to developing electricity. A thermal power plant with a capacity of 1,300 megawatts, the largest in Cuba, is being built in Havana province. However, keeping in mind the importance of conserving liquid fuel, the main efforts are being focused on developing Cuban atomic power engineering. In addition to two 440-megawatt units now being built at the Juragua atomic power plant (in the province of Cienfuegos), another two units with the same capacity are to be set up. New atomic power plants are supposed to be built in the province of Holguin as well as in the western part of the country. At the same time the network of power transmission lines and production capacities for servicing power plants will be expanded.

The development of geological survey and drilling work to increase explored reserves of petroleum and gas and the construction of appropriate capacities to extract them will be an important direction of bilateral cooperation. Accordingly, existing petroleum refining enterprises and port structures and underground bases to receive and store petroleum and mazut oil will be

expanded and modernized and new ones will be built, and new capacities to transport liquid fuel and gas will be put into operation.

In the field of ferrous metallurgy, the paramount task is to further expand and modernize the Jose Marti Metallurgical Plant. The production of metalware and refractory articles is to be organized and progressive methods of powder metallurgy are to be introduced. Work to establish new metallurgical capacities using scrap metal and iron-containing raw materials will be developed in the province of Holguin.

The field of nonferrous metallurgy faces the task of expanding existing and building new capacities to produce nickel-containing output as well as diversifying this output. The construction of a new nickel plant with a capacity of 30,000 tons per year (converted to metal) in Punta Gorda will be finished in the next 2 years. The construction of a new plant of the same capacity in Las Camariocas is beginning, with assistance from the USSR, the GDR, Czechoslovakia, Bulgaria, and Hungary. There are good prospects for developing polymetallic ore deposits, above all organizing the production of lead-zinc concentrates.

The appropriate geological survey work is to be expanded for the purposes of increasing explored reserves of mineral products in order to develop ferrous and nonferrous metallurgy, the building materials industry, the construction industry, the chemical industry, and other sectors of the economy.

In the field of machine building cooperation will take the path of increasing the production of machines and equipment for Cuba's economy (taking into account specialization and cooperation with the CEMA member-countries), in particular equipment for the sugar and food industries, agriculture -- animal husbandry and feed production, certain types of construction and transport equipment, tools, metalware, and so forth. Existing ship-repair capacities are to be expanded and new ones built and the technical base for servicing and repair of the stock of machines and equipment is to be made more efficient.

The field of electronics and electrical engineering envisions developing production of certain types of electrical equipment, among them computer equipment and control and measuring instruments as well as electric appliances. The production-technical base for the electronics and electrical-engineering industry will be created in order to satisfy domestic needs and for export.

In the field of the chemical and light industry the further expansion of capacities to produce mineral fertilizers, primarily on the basis of ammonia and certain other types of raw materials supplied by the USSR, is of paramount significance. The production of certain types of chemical and petrochemical output is to be organized based on specialization and the interest of the parties in the mutual exchange of the corresponding commodities.

Capacities to produce various types of paper and cardboard based on bagasse and cellulose from coniferous wood found in Cuba will be expanded and modernized. The production of furniture using bagasse sheets as well as sewn and certain other items of light industry will be developed, soap factories

will be reconstructed, and new capacities to produce detergents will be built.

The field of the medical industry envisions organizing the production of pharmaceutical raw materials from medicinal plants which grow in Cuba and expanding the production of medicines and veterinary compounds as well as organizing the production of certain types of medical equipment and laboratory instruments.

In the field of the building materials industry and the construction industry, the production of water-proofing materials, sanitary-technical items, reinforced concrete pipe, and finishing and other materials as well as glass containers and sheet glass is to be developed. The production base for the technical servicing and repair of construction equipment will be developed.

Cooperation in the field of transportation and communications will be developed in the following directions: maritime shipping and containerization are to be expanded and capacities to supply and service ships are to be built; air transport is to be developed and airports and the repair base and systems for controlling and servicing air traffic are to be built; the railroad transport network and its repair base are to be expanded; the radio broadcasting, television, telecommunications, and postal services systems are to be modernized and expanded; and problems of passenger conveyance in Havana, including the study of the possibilities of building a metro, are to be solved.

The primary role in the field of science and technology is being assigned to scientific-technical developments related to fulfilling Cuba's food program, in particular in the area of using and conserving water and land resources, developing plant and animal genetics, creating a system of fattening livestock with the local feed base, technologies, and processing of agricultural output, and so forth.

Scientific-technical developments related to the fuel-energy complex are also important; these include, in particular, searching for petroleum and gas and refining them, incorporating the technology of atomic power engineering, improving the energy systems of the main sectors of industry, and incorporating nontraditional sources of energy.

Scientific-technical developments in the field of machine building and metallurgy will also be developed further. The Intergovernmental Soviet-Cuban Commission on Economic and Scientific-Technical Cooperation and the central planning organs of both countries will monitor progress in fulfilling the joint measures agreed upon in the above-mentioned program.

The CPSU Central Committee Politburo approved the results of the Soviet party-governmental delegation's negotiations with Comrade F. Castro and other Cuban leaders and expressed confidence that the realization of the program outlined will actively foster the steady strengthening of Soviet-Cuban friendship and the interests of the peoples of our countries and the entire socialist community as a whole.

#### FOOTNOTES

1. "Ekonomicheskoye soveshchaniye stran-chlenov SEV na vysshem urovne. 12-14 iyunya 1984 goda. Dokumenty i materialy" [The Economic Summit Conference of CEMA Member-Countries. 12-14 June 1984. Documents and Materials], Moscow, 1984, p 12.
2. "Granma," La Habana, 18 June 1984.

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CEMA/EASTERN EUROPE

USSR-HUNGARY: SYMPOSIUM CONSIDERS ECONOMIC STRATEGY

PM141106 Moscow EKONOMICHESKAYA GAZETA in Russian No 23, Jun 85 (signed to Press 3 Jun 85) p 20

[Unattributed report: "Economists Meeting"]

[Text] A Soviet-Hungarian scientific symposium devoted to urgent questions of socioeconomic strategy and the prospects for improving the economic mechanism at the stage of intensification of the national economy was held in Moscow 28-30 May.

The welcoming address to the symposium participants was delivered by Academician P. N. Fedoseyev, vice president of the USSR Academy of Sciences. Academician D. M. Gvishiani, deputy chairman of the State Committee for Science and Technology, then spoke.

Speeches on the key questions of socioeconomic strategy, the improvement of the economic mechanism in the USSR and Hungary, the deepening of socialist economic integration, and the fulfillment of the CEMA economic summit decisions were delivered by I. Huszar, member of the MSZMP Central Committee and director of the MSZMP Central Committee Party History Institute; J. Vancsa, member of the MSZMP Central Committee and Hungarian minister of agriculture and food; J. Hoos, secretary of state at the Hungarian National Planning Office; Academicians J. Bogнар and A. Sipos; F. (Vishshi), deputy chairman of the Hungarian State Committee for Materials and Prices; M. Pullai, deputy chairman of the Hungarian National Planning Office; A. Balassa, chief of an administration at the Hungarian National Planning Office; F. Berecz, member of the MSZMP Central Committee and director general of the Budapest Communications Equipment Plant; Academicians A. G. Aganbegyan, A. I. Anchishkin, O. T. Bogomolov, and T. S. Khachaturov; I. I. Abalkin, corresponding member of the USSR Academy of Sciences; V. K. Sanchagov, deputy chief of a USSR Gosplan department; and other scientists and workers from the central economic organs of the USSR and Hungary.

The recommendations worked out at the scientists' meeting are aimed at increasing economic science's contribution to the development of ways of accelerating socioeconomic development and scientific and technical progress and deepening Soviet-Hungarian cooperation.

Yu. A. Belik and O. A. Chukanov, deputy chiefs of CPSU Central Committee departments; M. Nemeth, deputy chief of the MSZMP Central Committee Economic Policy Department; and S. Rajnai, Hungarian ambassador to the USSR, took part in the symposium's work.

CEMA/EASTERN EUROPE

# STATISTICAL METHODS OF STUDYING CEMA PRODUCTION EFFICIENCY

Moscow VESTNIK STATISTIKI in Russian, No 4, 1985 pp 56-66

[Article by V. Kudinov, deputy chief, TsSU [Central Statistical Administration] and Professor M. Eydel'man, director, NII TsSU [TsSU Scientific Research Institute], doctor of economic sciences: "Statistical Methods in Studying the Economic Efficiency of Public Production in the CEMA Countries"]

[Text] Materials from the Economic Summit Conference of CEMA Countries held in Moscow on 12-14 June 1984 indicate that the accelerated conversion of the economy to an intensive development path, increases in its efficiency through structural improvements in social production, the rational and economical use of existing material and labor resources, the better utilization of fixed capital and scientific-technical potential are very important economic and mutual collaboration tasks at the present stage.

Improvements in social production efficiency are a common pattern in the socioeconomic development of socialist society. The essence of the problem is to achieve, in society's interest, the greatest results at least cost and for each unit of labor, material and financial outlays to attain the largest possible effect and greatest production volume and national income.

The basic factors for improving economic efficiency are accelerated scientific-technical progress, the economic introduction of the newest scientific and technical achievements, improvements in production organization, a steady growth in labor productivity, the rational use of the country's economic potential and universal economies in all types of resources. Improvements in planning and the economic mechanism are of substantial significance for improving social production efficiency. Only on the basis of rapid growth in labor productivity and social production efficiency improvements can there be successful solutions to the tasks facing CEMA countries and dynamic and stable development of social production in all sectors of the national economies.

Statistics have a big role in solving these tasks. The development of statistical methods for studying economic efficiency, a single, coordinated system of indicators, their assessment and an analysis of factors influencing changes in efficiency are all now of exceptional importance in studying

economic processes, in improving the management and planned leadership of the country's economy and in the further development and deepening of multilateral collaboration in statistics between CEMA countries.

The presence of such a system of indicators will make possible a considerable expansion in the economic and statistical analysis of data obtained during the international comparison of the most important value indicators for CEMA countries, improvements in their standards and the performance of calculations and comparisons during the study of social production efficiency in CEMA countries .

In the CEMA countries a number of works have been published on theoretical and methodological questions in determining the efficiency of socialist reproduction. Together with scientific research there has been work of an applied character: the development of a methodology for measuring the efficiency of social production, practical calculations for different indicators at the national economic level, for individual sectors and enterprises. In particular these include the methodological instructions for planning improvements in social production efficiency, methodologies for determining the economic efficiency of capital investments, new technology, etc, which have been developed by CEMA countries.

Problems in the statistical study of social production efficiency are very complicated, multifaceted and have many aspects. In this area the CEMA countries have developed and tested various concepts suitable to the national specifics of each country. Exchange of experience in this area creates a good basis for further expansion and deepening of joint socioeconomic research within CEMA. The task is, after having drawn inferences from the experiences of CEMA countries, to develop a unified, scientifically based system of indicators for the statistical study of social production efficiency in these countries.

In 1984 in Varna, Bulgaria there was a Scientific Conference on Problems in the Statistical Study of Social Production Efficiency in CEMA Countries. In preparation for this conference, back in 1983 the Statistics Department of the CEMA Secretariat directed delegates from all CEMA countries to the CEMA Standing Commission to collaborate on a statistics "Questionnaire" on the theme "Statistical Methods for the Study of the Economic Effectiveness of Public Production." The USSR delegates were entrusted with the compilation of a concluding report which examined theoretical aspects of urgent problems in the study of social production efficiency and which gave suggestions for their solution.

During the discussion of the concluding report and other reports and materials presented by the delegates, participants at the conference examined a wide circle of problems in the theory and practice of the statistical study of social production efficiency at the present stage of CEMA countries' economic development .

The elaboration of statistical methods for the study of social production economic efficiency involves solutions to the following basic problems: determining criteria for its evaluation; the construction of a scientifically based system of indicators and the development of a methodology for calculating them; the development of a methodology for the economic-statistical analysis of factors in efficiency.

Criteria for economic efficiency. A general picture of social production efficiency is obtained by comparing the final results of production and the outlays (or resources used, outlays of labor, equipment, raw materials, etc) to obtain them. Improvements in economic efficiency mean economies in direct and embodied labor, expended to obtain a specific result.

The efficiency of social production depends upon the socio-economic conditions for society's development, the development level of productive forces and the character of productive relations. In the capitalist mode of production, based on private capitalists' ownership of the means of production and the exploitation of wage labor, the efficiency criterion is capitalists obtaining the maximum profit. In a socialist society, in which there is public ownership of the means of production, the determination of economic efficiency is based upon general state and national economic interests. Everything is efficient which is most helpful in assisting the rapidist achievement, at least cost, of the tasks in the development of socialist society posed at each stage.

At present, the statistical practice of CEMA countries bases an overall evaluation of the economic efficiency of production upon a single national economic criteria -- the maximization of the growth in national income (net product) with regard to outlays for its production or to the resources used in production .

In principle, the materials of CEMA countries delegates are more or less similar with regard to the treatment of criteria for the economic efficiency of social production . Nevertheless, there are differences both with regard to content and to the formulation of the concept of "criteria."

A study of materials presented at the conference shows that there is a need to continue work on assuring a unified treatment of efficiency criteria. In some cases no difference is distinguished between the concepts of "criterion" and "indicator". The recommended summary indicator for social production efficiency is used as a criterion of public production efficiency. Some authors point to the necessity of between "economic efficiency" and "social efficiency" and, in addition to economic efficiency to distinguish social efficiency.

Some reports also posed the question of a different approach to determining an efficiency criterion and its calculation depending upon what level efficiency is studied -- at the national economic or enterprise level. In the first case it is proposed to evaluate efficiency on the basis of the maximization of net product of a given enterprise, and in the second, upon the maximization of national income.

In view of the great importance of a proper determination of efficiency criteria in the elaboration of a scientifically based system of indicators for the statistical study of economic efficiency, it seems to us that questions of a general criterion for efficiency and its socio-economic content, economic efficiency and social efficiency, the difference between the criteria of efficiency and its summary indicator should be a subject of discussion among economists and statisticians.

In examining reports at the scientific conference in Varna, its participants came to the conclusion that under socialist conditions, the overall national economic criterion for the economic efficiency of social production is the growth in national income (net product) in relation to outlays for its production. Based on this indicator, economic efficiency is measured in the form of the relationship of results to outlays or resources used. In the opinion of conference participants, such an approach to economic efficiency assures the unity of the criterion and indicator, the simplicity and accessibility of their use at various levels of the national economy and makes possible international comparability of data.

As was stressed by speakers, the observation of the organic linkage of all system indicators and factors in each country's economic development is a general principle in the study of the economic efficiency of social production. It was pointed out at the conference that the statistical analysis of economic efficiency should include socio-economic goals set in the program documents of communist and workers parties in CEMA countries and in plans for the social and economic development of these countries.

The construction of a scientifically based system of indicators and the methodology for calculating the economic efficiency of social production. Being the foundation for the development of a scientifically based system of indicators, the criterion of economic efficiency in itself does not include a quantitative evaluation of efficiency. In order to determine economic efficiency and evaluate its factors it is necessary to have a system of indicators making possible the quantitative comparison of the effect obtained and the outlays required.

The formation of a scientifically based system of such indicators involves a number of very important and quite complicated problems in economic science and practice which, for a number of years, have been discussed by economists and statisticians. In the opinion of some of these specialists, the efficiency of social production is a complex multi-aspectual economic category, the quantitative measurement of which is possible only with the help of a system of indicators. Others hold to the viewpoint that, together with a system of indicators it is also essential to have a summary indicator permitting an integrated evaluation of economic efficiency. A third group considers that the main task is to develop a single summary indicator of social production efficiency.

Without going into the details of the discussion, we note that a thorough study of the efficiency of social production requires a scientifically based system of indicators, including a number of summary (consolidated) indicators for the national economy (such as national income per capita, the productivity

of social labor, etc), making it possible to obtain the all around characteristics of social production efficiency in general for the national economy, its individual sectors and for regions of the country.

The diversity of factors determining the efficiency of social production and the aspects of its study require the construction of a system of indicators which, together with discovering factors and conditions for the growth in economic efficiency will make possible its comprehensive analysis and cover the major aspects of social production efficiency. Indicators in the system would be economically linked and, if possible, complete for all levels of the national economy and provide for a systems approach to the study of efficiency.

In particular, this should find reflection in solutions to questions involving the methodology of forming statistical indicators which would realistically characterize the economic essence of production efficiency and the factors influencing its changes and would also make possible the commensurability of results obtained in the production process with the outlays required or the resources used.

Practically all delegates from CEMA countries agreed that a description of the efficiency of social production made necessary a system of indicators encompassing all facets of the production process.

At present not all CEMA countries have developed such a final system of indicators. In order to study economic efficiency a number of countries use a set of indicators such as the productivity of social labor, material intensiveness, etc. Based on practical experience in this area acquired by CEMA countries it is possible to further improve calculations of these indicators and work out a scientifically based system.

In this regard let us examine how individual countries approach the formation of a system of indicators of social production efficiency, first of all indicators characterizing efficiency at the national economic level.

In planning and accounting work in Bulgaria they use a system of indicators which, at the national economic level, includes summary indicators, indicators for the efficiency of individual resources, specific indicators of efficiency for individual sectors, production operations and types of activity. In practical work they use the following summary indicators: the social productivity of labor, the material intensiveness of social production, the per capital consumption fund, the relationship between the increase in social consumption funds and the growth in national income. In the course of analysis use is made of other relationships between individual efficiency indicators making it possible to delineate their linkages. Thus, they study the relationship between the growth rates of social productivity of labor and the capital available to labor; the social productivity of labor and the average wage, the relationship between the population's effective demand and goods available, etc.

In Hungary they use the following indicators for the statistical study of efficiency: a comprehensive indicator of efficiency, an indicator for the efficiency (productivity) of labor; an indicator for the output capital ratio.

In the numerators of all these indicators the value of net product [produktsiya] is used at output [vypusk]. At the national economic level, first of all in material production activities, they calculate a comprehensive indicator of efficiency (in which national income is shown as output). The numerator shows total outlays of direct labor the the means of production .

The dynamics of social production efficiency are studied over time or compared to plan and actual magnitudes. In these cases all calculations are made in comparable prices. They can be made in the course of a year, when it is necessary to determine possible variants, for example, alternative solutions to questions about capital investments.

In statistical work in the GDR, the main indicators of national economy efficiency are the volume and dynamics of national income, which are related to the number of workers in the sphere of material production, to the value of fixed capital in this sphere and to the amount of productive consumption necessary to produce national income. These indicators of efficiency are not aggregated into a single indicator, each one is analyzed. In addition, they calculate efficiency indicators such as national income per capita, the share of labor productivity in national income growth, the efficiency of accumulation of capital investments and others. The question of creating an integral indicator is not viewed as a partial, but as the main problem in the measurement of efficiency. The basis for the study of economic efficiency is a system of indicators thoroughly characterizing the the process of expanded socialist reproduction. Great importance is placed upon a factor analysis of the efficiency of social production.

To study economic efficiency in the Republic of Cuba use is made of a total set of synthetic indicators such as overall efficiency in the use of resources, the efficiency of current expenditures and the overall efficiency of social production. In addition to these indicators, statistical work in Cuba makes use of others: indexes for the growth in labor productivity, capital output ratio, material expenditures per peso of output, wage outlays per peso of output, etc.

In statistical work in Poland they have developed such traditional indicators as the dynamics and level of national income per capita, the share of labor productivity in national income increases, the dynamics and level of per capita consumption, etc.

In national statistics for the Socialist Republic of Vietnam, economic efficiency is calculated with the help of an indicator of labor productivity, output-capital ratio and material intensiveness. Approximately the same procedure is used in the Mongolian People's Republic.

In Romania, statistical work on the study of economic efficiency at the national economic level utilizes a number of consolidated indicators for the use of the work force, fixed capital and capital investments, material outlays and the efficiency of foreign trade. The most important consolidated indicator for economic efficiency is the productivity of social labor, calculated as the ratio of social product or national income to the number employed in material production. As was noted in materials presented by the Romanian delegation, this indicator does not express productivity as much as it does the average volume of output per unit of time (per worker).

In USSR state statistics, the efficiency of social production is calculated on the basis of an interlinked system of indicators. Its comprehensive analysis over a number of years makes it possible to obtain the overall characteristics of the expanded socialist reproduction process and its individual facets. The main indicators for economic efficiency at the national economic level are: national income per capita, the productivity of social labor, the material intensiveness of social product and national income, capital-output ratio and capital intensiveness, the ratio of the growth rates for the productivity of social labor and the wages fund, the growth in national income due to growth in labor productivity, profitability, the pay off period of capital investments, and others. The efficiency of social production is studied at various levels -- for the national economy as a whole, individual sectors, ministries, enterprises and regions. Great attention is given to an analysis of factors for improving efficiency.

For many years in the Soviet economic literature there has been a discussion about calculating, together with the system of indicators, a single summary indicator making it possible to obtain the global characteristics of economic efficiency. Specific proposals have been made about the procedures and formulas for its calculation. However, these proposals still contain a number of disputed points and are not used in state statistical work.

To determine economic efficiency in Czechoslovakia, use is made of a system of analytic indicators. Their analysis is based on several interrelated groups. The first group consists of "input" (volume) indicators reflecting the direction or state of economic development, for example, the social product, national income, capital investments, the productivity of fixed capital, the number of workers, etc; while the second includes indicators describing development levels, for example, the productivity of social labor, the material intensiveness of national income, the output-capital ratio for fixed capital, etc. In analytic work calculations are made to obtain an overall evaluation of the efficiency of outlays and results of economic development. From the perspective of the construction of the appropriate indicators this involves determining the ratio of total capital investments obtained through the realization of the annual effect of economic development, to the total money spent to obtain it. An indicator of national economic profitability is used to obtain the degree of intensiveness of the resources invested compared to the results obtained.

In summing up the results of CEMA countries experience in the use of a system of economic statistical indicators to study the efficiency of social

production, one can state that practically all countries calculate indicators for the productivity of social labor, the material intensiveness of social production, output capital ratio, profitability and a number of other indicators describing the efficiency of social production. Important indicators such as the productivity of social labor, output-capital ratio and others are calculated by identical or similar methodologies. If one ignores certain terminological differences, one can say the same about the calculation of indicators for the material intensiveness of social product, national income and a number of others. All this creates a good basis for the development of coordinated methodological principles for the comparison of the main indicators for economic efficiency in CEMA countries. At the same time, judging from reports and materials presented by delegates to the conference, there are differences in the content of some efficiency indicators and in methodology for their calculation.

Conference participants noted the considerable experience acquired by a number of CEMA countries in the creation of systems of statistical indicators describing the efficiency of social production, but also pointed out that in spite of the progress achieved in this area, there has not yet been enough theoretical and methodological work on a number of major questions involving the formation of a scientifically based system of indicators for studying economic efficiency on an international level, and for making comparative analyses of CEMA countries.

During the first stage of development it was recommended to make a list of the main indicators of social production efficiency and the methodology for their calculation, keeping in mind its use for international comparison.

The "List of Main Indicators for the efficiency of social production" proposed by the USSR delegation was taken as a basis for discussing this question. It includes the following indicators: productivity of social labor (the ratio of national income to the average annual number of workers employed in the material production sphere), labor productivity, calculated as gross social product, the ratio of the growth rate of payments to labor and the productivity of social labor, the output-capital ratio, the capital intensiveness of the growth in national income, the material intensiveness of national income, the material intensiveness of gross social product, national economic profitability (the ratio of surplus product to production outlays)<sup>2</sup>, the profitability of productive capital<sup>3</sup>, the ratio of surplus product to the wages fund in material production<sup>4</sup>, per capita national income used for consumption and accumulation, consumption funds and real income.

It was observed that this list of main indicators might be used mainly to characterize the efficiency dynamics of the most important aspects of social production in CEMA countries. The use of this list for a comparative analysis of social production efficiency in CEMA countries is restricted, particularly because the initial data in CEMA organs are in the currency of each country and are not directly comparable.

The scientific conference approved in principle the proposed list of main indicators and recommended that they be used in analytic work of the CEMA Standing Commission on Collaboration in Statistics and that work continue on

further improvements in a system of indicators for the efficiency of social production, having including its appropriate stages in the Commission's work plan for 1985-1986.

The discussions of materials and reports by CEMA countries delegates noted problems which require further scientific research and practical solutions.

One major problem in the statistical study of social production efficiency is the development of an methodology for determining the influence of the most important factors in efficiency, first of all, those such as the acceleration of scientific-technical progress, economies in labor and material resources, and others.

The difficulty of working out such a methodology is that the effect of each of the factors upon social phenomena and processes is not isolated, but is combined and linked to the other factors. For example, the effect of scientific-technical progress upon improving the efficiency of social production is combined with factors such as the rational organization of production, growth in the productivity of direct labor, economies in material resources, etc. All these factors act together and depend upon one another. Therefore, the quantitative measurement of the influence of each individual factor in its "pure" form upon production efficiency is an extremely difficult task. It can only be solved in a very tentative way. However, such evaluations are of great importance for analyzing the influence of individual factors upon improving social production efficiency and taking the appropriate measures to eliminate shortcomings. It is important that the calculations be scientifically based and give results with minimal assumptions.

Another important task is the determination of total outlays and the possibility of calculating a comprehensive or integral indicator of efficiency.

Some participants noted that together with a system of efficiency indicators it is also important to development a comprehensive indicator which would reflect the influence of changes in labor productivity, the output-capital ratio and the material intensiveness of production. Others thought that although scientific institutions are extensively researching the development of integral indicators for efficiency, nevertheless the question of creating such an indicator should not be considered the main problem. Priority is to be given to a system of indicators, and not to one indicator, even a comprehensive one. As can be seen from the materials presented at the conference, in some countries calculations for comprehensive indicators of efficiency are made in practical work, although they have somewhat of a conditional character. Thus, in Hungary, a comprehensive indicator of efficiency has one of the central places in the system of indicators characterizing national economic efficiency. It is calculated by using "normative coefficients of efficiency", with the help of which various types of labor and material outlays are reduced to a common denominator.

At the same time there are terminological differences with regard to the concepts "consolidated, summary" [svodnyy, obobshchayushchiy] indicator and "integral or comprehensive indicator." Materials presented by delegates from

some countries speak of a number of summary indicators, by which is meant consolidated indicators for the national economy. One should note that a single summary or integrated indicator of efficiency is difficult to develop, in particular because a common measure must be found for various types of labor and material resources. In order to express outlays of past labor through outlays of direct labor, it is necessary to carefully calculate and evaluate numerous factors influencing the coefficients for converting embodied labor into direct labor.

As is known, the efficiency of social production can be calculated by the so-called "outlay" variant (the economic effect of production is measured by current outlays) or the resource variant (the economic effect is compared with resources used in production). In answers to the questionnaire and in delegates' reports the largest number referred to the "outlay" variant. This is obviously because it best meets practical needs in the organization of statistical surveys and the availability of statistical information. True, one can say that the "resource" variant for calculating efficiency is of practical importance. It is directly linked to the use of available production potential and therefore undoubtedly plays a major role in estimating the efficiency of social production. The problem is to develop scientifically based methods for the qualitative measurement and evaluation of the resources used to obtain a specific economic effect.

Much attention was given to the problem of developing a methodology for determining the influence of scientific-technical progress, structural shifts, participation in the international division of labor and other factors on the efficiency of social production.

Taking into consideration some specifics of the economic and social development of individual countries, one characteristic feature of the economic and social development of CEMA countries is the orientation towards the intensification of social production and the economical use of material, labor and financial resources. At the same time, it is necessary to find a method for the overall determination of the growth in national income through the intensification of social production.

The materials of CEMA countries delegates include lists of indicators characterizing production intensification and information for studying the influence of scientific and technical progress on social production efficiency.

Thus, materials from the GDR delegation report that in order to measure production intensification use is made of indicators, the content of which is the inverse of the main efficiency indicators: fixed capital per unit of national income, materials use per unit of national income and others. Also, they use a large number of efficiency indicators for the most important factors in intensification, such as scientific and technical progress, the efficiency with which material resources, fixed capital, capital investments, labor and other resources are used.

In Hungary an index of gross output per employed worker is used to measure production intensification; in Cuba -- an indicator for the growth in output

due to labor productivity; in Poland -- shift index coefficients for workers, the use of work places, and others; in Romania -- an indicator of the degree of use of material resources, the use of production capacity, etc., together with indicators of labor productivity and output-capital ratio).

In order to study scientific and technical progress the majority of countries use indicators reflecting the quantitative growth in new equipment and technology, the relative share of new items in total production and the growth in profits through the introduction of new technology, etc.

However, there is a need for further improvements in methodological work in this direction, especially in determining the influence of scientific and technological progress on social production efficiency. Apparently, the question concerning the influence of scientific and technical progress upon social production efficiency should be studied in light of the analysis of individual elements in the production process and the efficiency of the final results obtained. Statistical and mathematical economic methods should be widely used. This should be based upon preliminary, profound qualitative research into these processes and phenomena.

Questions about prices, profitability and the efficiency of foreign trade are of great significance in the statistical study of economic efficiency. Delegates from the majority of countries recommended using constant prices for the comparative evaluation of social production efficiency. The calculation of efficiency indicators in current prices gives an evaluation of results from actual operations in a specific period and reflects real relationships and proportions in view of the price level and system at this time. In our opinion, at this stage in the study of social production efficiency in CEMA countries, especially the study of efficiency dynamics for the purpose of making international comparisons, it is advisable to be based on the price practice which was in effect in each country during the formation of national economic value indicators and their individual components.

To analyze national economic profitability, a large share of the countries use indicators characterizing the relationship of aggregate [sovokupnyy] profits (profits and turnover tax) and the value of fixed productive capital or the prime cost of gross social product. Profits, the methods for its formation and calculation all depend upon specific economic policies. Profits also reflect the economic results of production collectives (enterprises, associations, sectors). In this way they reflect the degree of production activity efficiency. It seems advisable to research the role and place of this indicator in improving economic efficiency, to study methods for its calculation in individual CEMA countries and to develop a single methodology.

To study foreign trade efficiency, statisticians, as a rule, use indicators characterizing the results of foreign trade activities and not their direct influence upon national economic efficiency.

Although attempts are definitely being made in this direction, in general one must state that questions concerning the determination of foreign trade

efficiency upon the economic efficiency of social production still require further research.

The Conference on Problems in the Statistical Study of Social Production Efficiency in the CEMA Countries made possible a broad exchange of opinion and the outlining of basic directions in the further development and improvement of work in this area. Conference participants worked out specific recommendations on the creation of a scientifically based system of indicators (in the first stage this is this the list of basic indicators ) to be used in analytic work performed within the scope of activities by the CEMA Standing Commission on Collaboration in Statistics. The conference's results and the measures taken by it will be of great help in improving the level of methodological and practical work by the Commission and will assist in further expanding and deepening multilateral collaboration by CEMA countries.

#### FOOTNOTES

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1. This article gives a brief analysis of materials presented by CEMA country delegates to the Scientific Conference on Problems in the Statistical Study of Social Production Efficiency in the CEMA Countries (1984, Varna).
  2. For State and Cooperative Sectors of the National Economy.
  3. For State and Cooperative Sectors of the National Economy.
  4. For State and Cooperative Sectors of the National Economy.

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WESTERN EUROPE

U.S. ATTEMPTS TO CONTROL SWEDISH TECHNOLOGY EXPORTS HIT

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[Text] Moscow, 8 Jun (TASS)--Commenting on the recent visit to Sweden by the head of the U.S. Customs Service W. Von Raab, IZVESTIYA's Stockholm correspondent Aleksandr Sychev writes today that he had talks there, in particular, about giving U.S. legal representatives information about Swedish enterprises' "violating the United States' ban on exporting the latest technology to socialist countries."

Recalling that as a result of many years of pressure on Sweden the United States "achieved the right to examine the activity of 300 Swedish firms," the correspondent notes that "by no means has Washington stopped at this." As reported by NEW TECHNIQUE [as transliterated] magazine, U.S. Secretary of Defense C. Weinberger signed a directive to the effect that Washington is not satisfied with its control over just U.S. technology. The head of the Pentagon has demanded that every trade deal be investigated that involves the export of technology, even if it "is not American, but is detrimental to U.S. security."

It is obvious, continues the correspondent, that the present talks undertaken by the United States are in execution of the directive released by the Pentagon. However, the attempt by the guest from across the ocean to place the entire Swedish export under control has not been crowned with success so far. "If the U.S. Customs Service wants us to give information on Swedish export firms which do not violate our laws then we will reply to this with refusal," said B. Eriksson, general director of Swedish Customs.

The United States' claims to the role of final instance, dictating their conditions to world trade, evoke the anxiety of Swedish entrepreneurs. The "rules" being put forward by Washington are aimed at hampering Swedish firms' trade ties, which will be detrimental to both the political and economic positions of the country, A. Sychev writes in conclusion.

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